RF MEASUREMENT REPORT

FCC ID:	2APJ4-SLM156
Application:	MeiG Smart Technology Co., Ltd
Product:	CAT-M Module
Model No.:	SLM156
Brand Name:	MEIGLink
FCC Rule Part(s):	Part 2, 22 (H), 24 (E)
Test Procedure(s):	ANSI C63.26: 2015
Result:	Complies
Test Date:	2022-05-23 ~ 2023-04-21

Reviewed By: Vincent Yu

Approved By: Robin Wu

The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.26-2015. Test results reported herein relate only to the item(s) tested.

Revision History

Report No.	Version	Description	Issue Date	Note
2205RSU044-U1	Rev. 01	Initial Report	2023-04-23	Valid

CONTENTS

1. General Information

1.1. Applicant

MeiG Smart Technology Co., Ltd

2nd Floor, Office Building, No.5 Lingxia Road, Fenghuang, Fuyong Street, Bao 'an District, Shenzhen, China

1.2. Manufacturer

MeiG Smart Technology Co., Ltd

2nd Floor, Office Building, No.5 Lingxia Road, Fenghuang, Fuyong Street, Bao 'an District, Shenzhen, China

1.3. Testing Facility

<table>
<tr><td>☒</td><td colspan="5">Test Site – MRT Suzhou Laboratory</td></tr>
<tr><td></td><td colspan="5">Laboratory Location (Suzhou - Wuzhong)
D8 Building, No.2 Tian’edang Rd., Wuzhong Economic Development Zone, Suzhou, China
Laboratory Location (Suzhou - SIP)
4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China</td></tr>
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1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China</td></tr>
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<tr><td></td><td colspan="5">Laboratory Location (Taiwan)
No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)</td></tr>
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1.4. Product Information

Product Name	CAT-M Module
Model No.	SLM156
IMEI	Conducted Measurement: 868510050004513 Radiated Measurement: 868510050007318
Operating Temperature	-35 ~ 75 °C
Hardware Version	SLM156_V1.01_PCB
Software Version	SLM156_5.0.12_EQ100
Power Type	3.3 ~ 4.2Vdc, typical 3.8Vdc
GSM Specification	
Band	GSM850, PCS1900
Modulation	GMSK, 8PSK
E-UTRA Specification	
Single Band	Cat M Band 2, 4, 5, 12, 13, 14, 25, 26, 66 NB-IoT Band 2, 4, 5, 12, 13, 25, 26, 66, 71
Modulation	Cat M: Uplink up to 16QAM, Downlink up to 16QAM NB-IoT: Uplink BPSK, QPSK; Downlink QPSK
Remark: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

1.5. Radio Specification

FDD T_X Frequency Range	GSM 850: 824 ~ 849MHz PCS 1900: 1850 ~ 1910MHz
FDD R_X Frequency Range	GSM 850: 869 ~ 894MHz PCS 1900: 1930 ~ 1990MHz

Note: For other features of this EUT, test report will be issued separately.

1.6. Description of Available Antennas

Technology	Frequency Range (MHz)	Antenna Type	Max Peak Gain (dBi)
GSM 850	824 ~ 849	PCB Antenna	0.44
PCS 1900	1850 ~ 1910		0.78

Note: All antenna information (Antenna type and Peak Gain) is provided by the manufacturer.

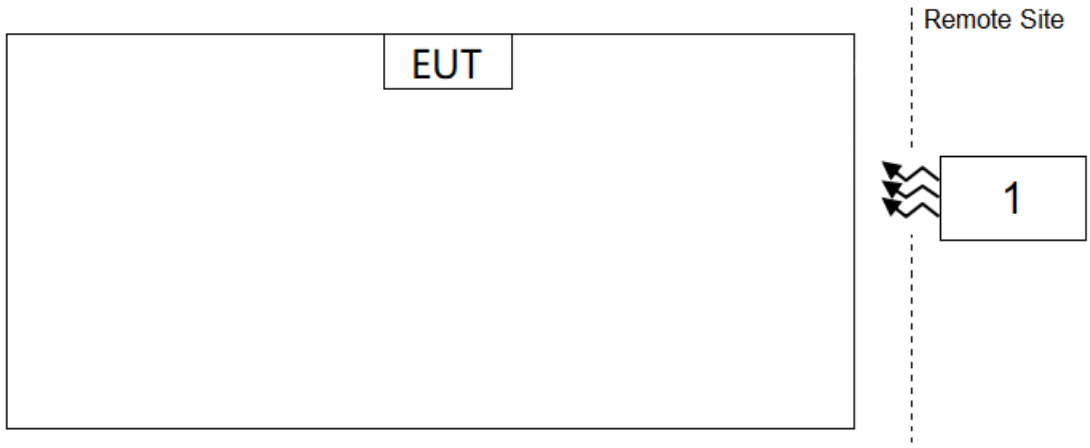
1.7. Test Methodology

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ANSI C63.26:2015
- FCC CFR 47 Part 2, Part 22, Part 24
- FCC KDB 971168 D01 v03r01: Power Meas License Digital Systems
- FCC KDB 971168 D02 v02r01: Misc Rev Approv License Devices
- FCC KDB 412172 D01 v01r01: Determining ERP and EIRP

2. Test Configuration

2.1. Test System Connection Diagram



Product		Manufacturer	Model No.
1	Wideband Radio Communication Tester	R&S	CMW 500

2.2. Test Environment Condition

Ambient Temperature	15 ~ 35°C
Relative Humidity	20% ~ 75%RH

3. Measuring Instrument

Instrument	Manufacturer	Model No.	Asset No.	Last Cali. Date	Cali. Due Date	Test Site
TRILOG Antenna	Schwarzbeck	VULB 9162	MRTSUE06022	1 year	2023-05-20	WZ-AC2
EMI Test Receiver	Agilent	N9038A	MRTSUE06125	1 year	2022-06-24	WZ-AC2
				1 year	2023-06-04	
Thermohygrometer	Mingle	ETH529	MRTSUE06170	1 year	2022-12-01	WZ-AC2
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06171	1 year	2022-10-21	WZ-AC2
Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2022-11-12	WZ-AC2
Anechoic Chamber	RIKEN	WZ-AC2	MRTSUE06213	1 year	2023-04-21	WZ-AC2
Thermohygrometer	testo	608-H1	MRTSUE11038	1 year	2022-11-11	WZ-AC2
Thermohygrometer	testo	608-H1	MRTSUE06362	1 year	2023-02-15	WZ-SR6
				1 year	2024-02-14	
Shielding Room	HUAMING	WZ-SR6	MRTSUE06443	N/A	N/A	WZ-SR6
Communication Tester	R&S	CMW500	MRTSUE06108	1 year	2022-11-26	WZ-SR6
				1 year	2023-11-25	
Signal Analyzer	Keysight	N9020B	MRTSUE06583	1 year	2022-10-10	WZ-SR6/WZ-TR3
				1 year	2023-10-08	
Radio Communication Analyzer	Anritsu	MT8821C	MRTSUE06960	1 year	2022-07-01	WZ-SR6/WZ-TR3
				1 year	2023-07-08	
Temperature Chamber	BAOYT	BYH-150CL	MRTSUE06051	1 year	2022-10-10	WZ-SR6/WZ-TR3
				1 year	2023-10-08	
Vibration Test System	DongLing	ES-1-150	MRTSUE06206	1 year	2022-08-08	WZ-SR6/WZ-TR3
				1 year	2023-07-07	
Thermohygrometer	testo	608-H1	MRTSUE06401	1 year	2022-06-28	WZ-SR6/WZ-TR3
				1 year	2023-06-06	
Directional Coupler	Agilent	778D	MRTSUE06083	1 year	2023-03-17	WZ-SR6/WZ-TR3
				1 year	2024-03-16	
Directional Coupler	narda	4226-10	MRTSUE06562	1 year	2022-10-28	WZ-SR6/WZ-TR3
				1 year	2023-10-27	
Attenuator	MVE	MVE2213	MRTSUE11087	1 year	2022-06-10	WZ-SR6/WZ-TR3
				1 year	2023-06-09	
Attenuator	MVE	MVE2213	MRTSUE11088	1 year	2022-06-10	WZ-SR6/WZ-TR3
				1 year	2023-06-09	

Software	Version	Function
EMI V3	V3.0.0	EMI Test Software
Controller_MF 7802	2.03C	RE Antenna & Turntable

4. Decision Rules and Measurement Uncertainty

4.1. Decision Rules

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4: 2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

4.2. Measurement Uncertainty

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Radiated Spurious Emissions
Measurement Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): Horizontal: 9kHz ~ 300MHz: 5.04dB 300MHz ~ 1GHz: 4.95dB 1GHz ~ 40GHz: 6.40dB Vertical: 9kHz ~ 300MHz: 5.24dB 300MHz ~ 1GHz: 6.03dB 1GHz ~ 40GHz: 6.40dB
Conducted Spurious Emissions
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 0.78dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 1.13dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 0.28%
Frequency Stability
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 76.2Hz

5. Test Result

5.1. Summary

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
2.1049	Occupied Bandwidth	N/A	Conducted	Pass	Section 5.2
2.1055, 22.355 24.235	Frequency Stability	< 2.5 ppm		Pass	Section 5.3
22.913(a)(5)	Equivalent Radiated Power	< 7 Watts Max ERP		Pass	Section 5.4
24.232(c)	Equivalent Isotropic Radiated Power	< 2 Watts Max EIRP			
24.232(d), 22.913(d)	Peak to Average Ratio	< 13dB		Pass	Section 5.6
2.1051, 22.917(a) 24.238(a),	Band Edge	< 43 + 10log10 (P[Watts])		Pass	Section 5.5, 5.7
2.1051, 22.917(a) 24.238(a),	Spurious Emission	< 43 + 10log10 (P[Watts])			
2.1053, 22.917(a) 24.238(a),	Spurious Emissions	< 43 + 10log10 (P[Watts])	Radiated	Pass	Section 5.8

Notes:

1) The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
2) All supported modulation types were evaluated. The worst-case emission of modulation was selected. Therefore, the Frequency Stability, Channel Band Edge, Conducted Spurious Emission, Radiated Spurious Emission were presented the worst-case in the test report.

5.2. Occupied Bandwidth Measurement

5.2.1.Test Limit

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured.

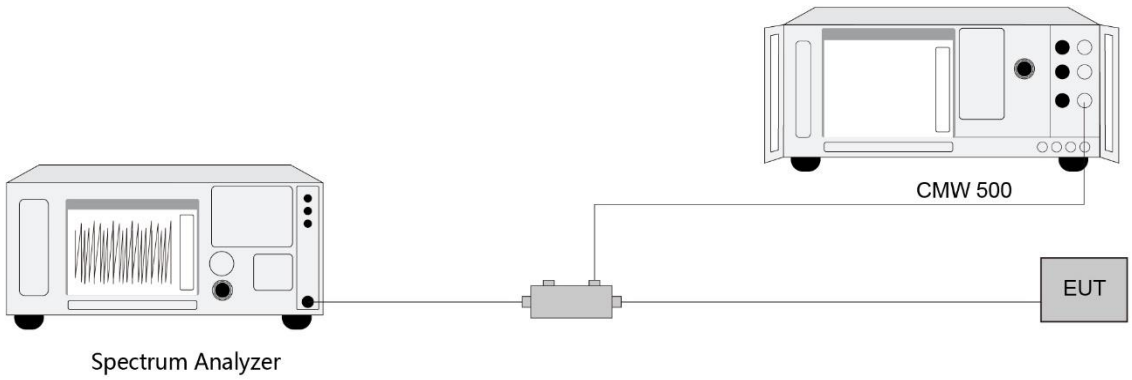
5.2.2.Test Procedure

ANSI C63.26-2015 - Section 5.4

5.2.3.Test Setting

1. Set center frequency to the nominal EUT channel center frequency
2. RBW = The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW
3. VBW ≥ 3 × RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. Allow the trace to stabilize
8. Use the 99% power bandwidth function of the instrument and report the measured bandwidth.

5.2.4.Test Setup



5.2.5.Test Result

Refer to Appendix A.1.

5.3. Frequency Stability Measurement

5.3.1.Test Limit

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5ppm) of the center frequency.

5.3.2.Test Procedure

ANSI C63.26-2015 - Section 5.6

5.3.3.Test Setting

Frequency Stability Under Temperature Variations:

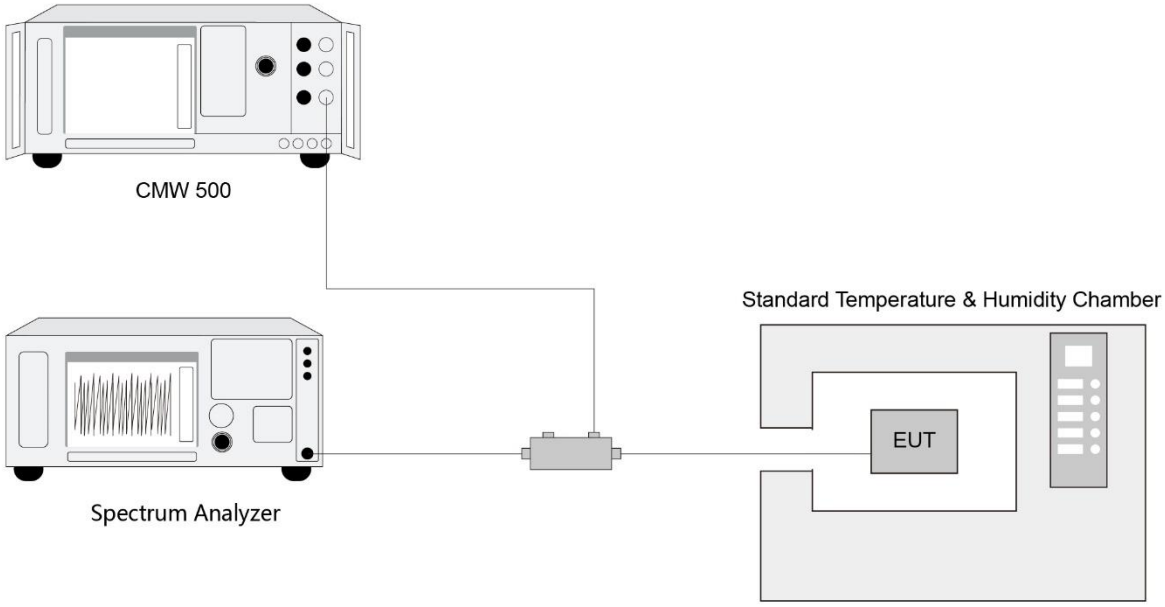
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to highest. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C decreased per stage until the lowest temperature reached.

Frequency Stability Under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation (±15%) and endpoint, recordthe maximum frequency change.

5.3.4.Test Setup



5.3.5.Test Result

Refer to Appendix A.2.

5.4. Equivalent Isotropically Radiated Power Measurement

5.4.1.Test Limit

GSM850:

The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

PCS1900:

Mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

5.4.2.Test Procedure

ANSI C63.26-2015 - Section 5.2

5.4.3.Test Setting

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation (1) as follows:

ERP or EIRP = P_{Meas} + G_T

where

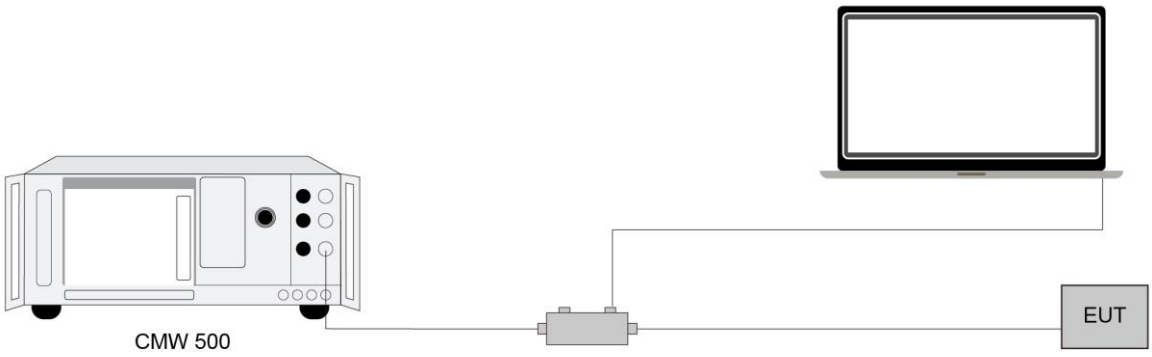
ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as P_{Meas}, e.g., dBm or dBW)

P_{Meas} measured transmitter output power or PSD, in dBm or dBW

G_T gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

ERP = EIRP -2.15

5.4.4.Test Setup



5.4.5.Test Result

Refer to Appendix A.3.

5.5. Band Edge Measurement

5.5.1.Test Limit

22.917(a), 24.238 (a)

For operations in the 824 ~ 849 MHz, 1850 ~ 1910 MHz, 1930 ~ 1990 MHz, 600MHz & 698 ~ 746 MHz and 1710 ~ 1755 MHz, the FCC limit is 43 + 10log10(P[$_{Watts}$]) dB below the transmitter power P(Watts) in a 1 MHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

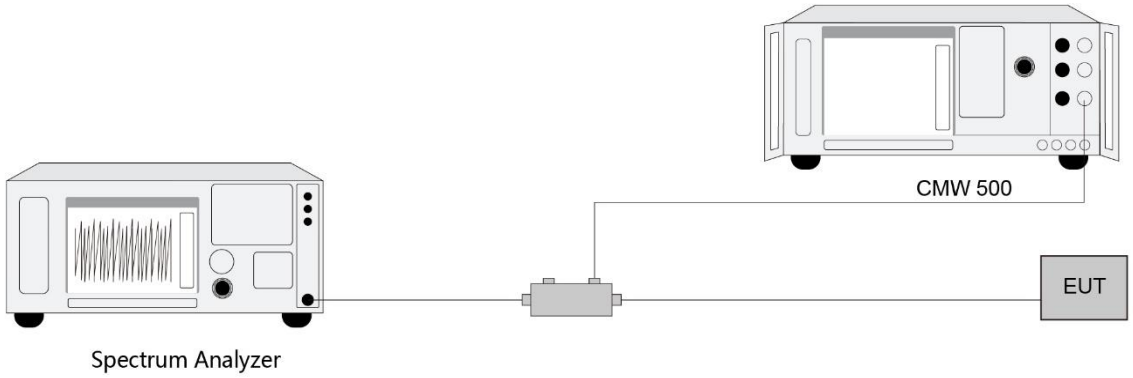
5.5.2.Test Procedure

ANSI C63.26-2015 - Section 5.7

5.5.3.Test Setting

1. Set the analyzer frequency to low or high channel
2. RBW ≥ The nominal RBW shall be in the range of 1% of the anticipated OBW (in the 1MHz band immediately outside and adjacent to the band edge). For improvement of the accuracy in the measurement of the average power of a noise-like emission, a RBW narrower than the specified reference bandwidth can be used (generally limited to no less than 1% of the OBW), provided that a subsequent integration is performed over the full required measurement bandwidth. This integration should be performed using the spectrum analyzer’s band power functions.
3. VBW ≥ 3*RBW
4. Sweep time = auto
5. Detector = power averaging (rms)
6. Set sweep trigger to “free run.”
7. User gate triggered such that the analyzer only sweeps when the device is transmitting at full power
8. Trace average at least 100 traces in power averaging (rms) mode if sweep is set to auto-couple. To accurately determine the average power over the on and off time of the transmitter, it can be necessary to increase the number of traces to be averaged above 100, or if using a manually configured sweep time, increase the sweep time.

5.5.4.Test Setup



5.5.5.Test Result

Refer to Appendix A.4.

5.6. Peak to Average Ratio Measurement

5.6.1.Test Limit

A peak to average ratio measurement is performed at the conducted port of the EUT. The spectrum analyzers Complementary Cumulative Distribution Function (CCDF) measurement profile is used to determine the largest deviation between the average and the peak power of the EUT in a given bandwidth. The CCDF curve shows how much time the peak waveform spends at or above a given average power level. The percent of time the signal spends at or above the level defines the probability for that particular power level.

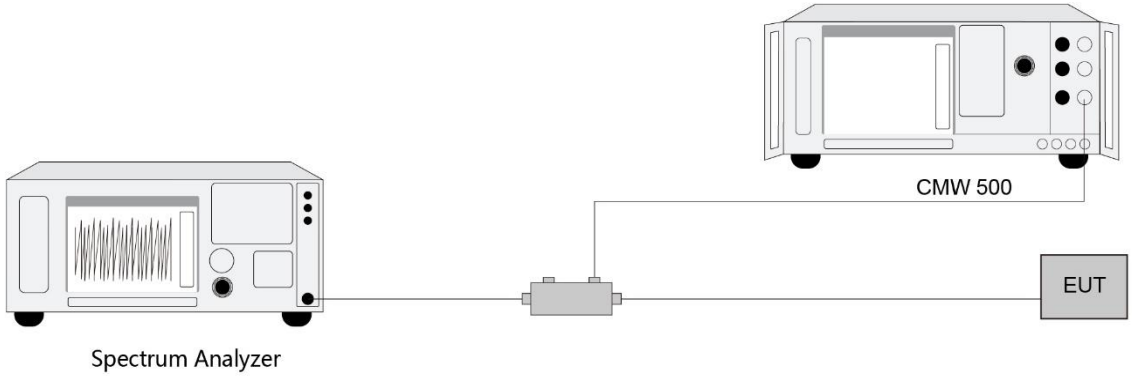
5.6.2.Test Procedure

ANSI C63.26-2015 - Section 5.2.3.4 (CCDF).

5.6.3.Test Setting

1. Set the resolution / measurement bandwidth ≥ signal's occupied bandwidth
2. Set the number of counts to a value that stabilizes the measured CCDF curve
3. Record the maximum PARR level associated with a probability of 0.1%

5.6.4.Test Setup



5.6.5.Test Result

Refer to Appendix A.5

5.7. Conducted Spurious Emissions Measurement

5.7.1.Test Limit

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst-case configuration. All modes of operation were investigated and the worst-case configuration results are reported in this section.

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

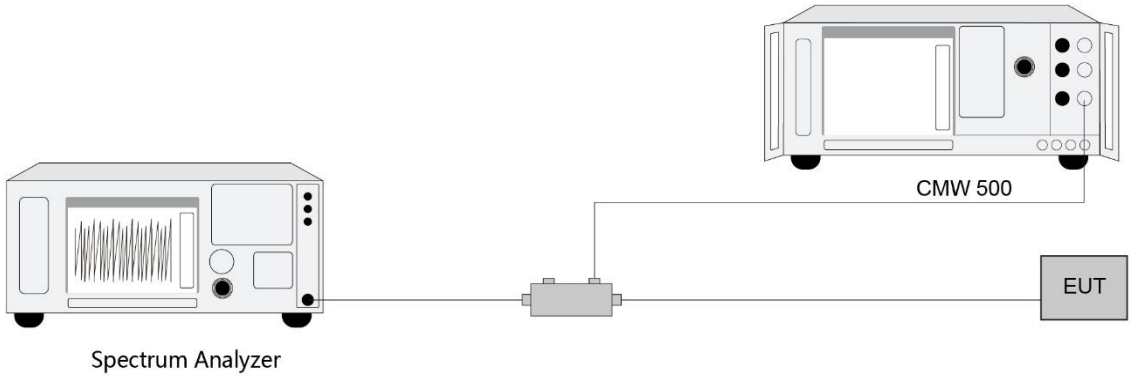
5.7.2.Test Procedure

ANSI C63.26-2015 - Section 5.7

5.7.3.Test Setting

1. Set the analyzer frequency to low, mid, high channel.
2. RBW = 1MHz
3. VBW ≥ 3*RBW
4. Sweep time = auto
5. Detector = power averaging (rms)
6. Set sweep trigger to “free run.”
7. User gate triggered such that the analyzer only sweeps when the device is transmitting at full power.
8. Trace average at least 100 traces in power averaging (rms) mode if sweep is set to auto-couple. To accurately determine the average power over the on and off time of the transmitter, it can be necessary to increase the number of traces to be averaged above 100, or if using a manually configured sweep time, increase the sweep time.

5.7.4.Test Setup



5.7.5.Test Result

Refer to Appendix A.6

5.8. Radiated Spurious Emissions Measurement

5.8.1.Test Limit

The power of any emission outside of theauthorized operating frequency ranges must be attenuated below the transmitting power (P) by a factorof at least 43 + 10 log(P) dB. The emission limit equal to -13dBm.

E (dBμV/m) = EIRP (dBm) - 20 log D + 104.8; where D is the measurement distance in meters. The emission limit equal to 82.3dBμV/m.

5.8.2.Test Procedure

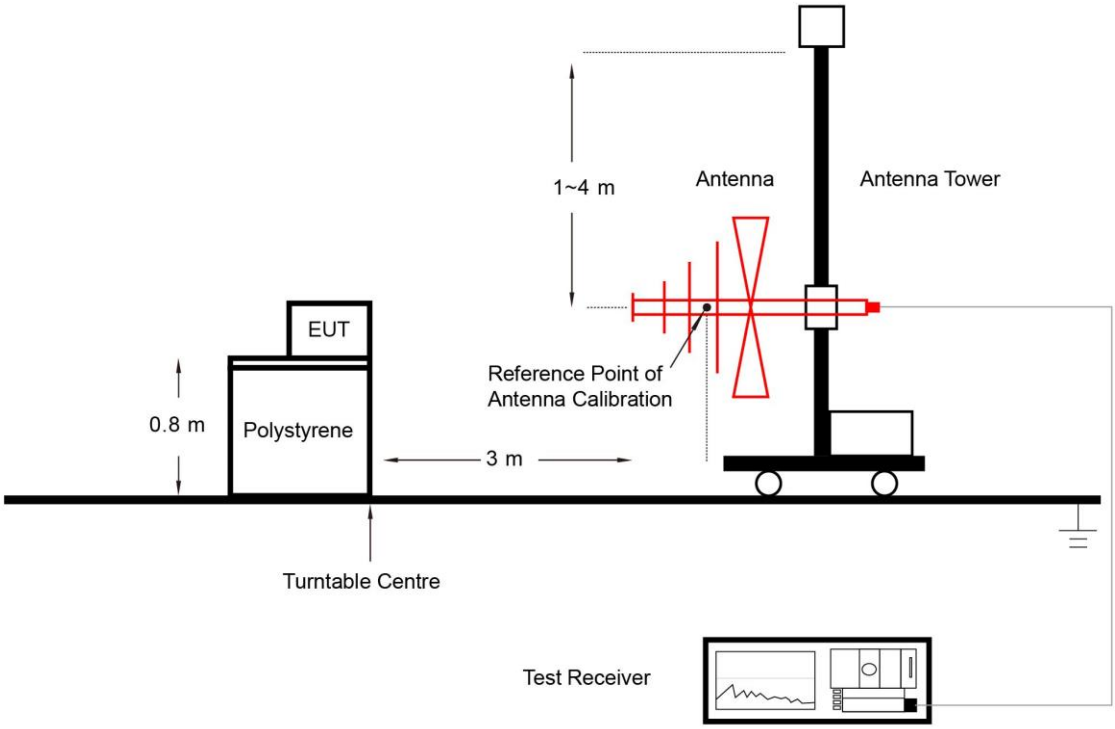
ANSI C63.26-2015 - Section 5.2.7 & 5.5

5.8.3.Test Setting

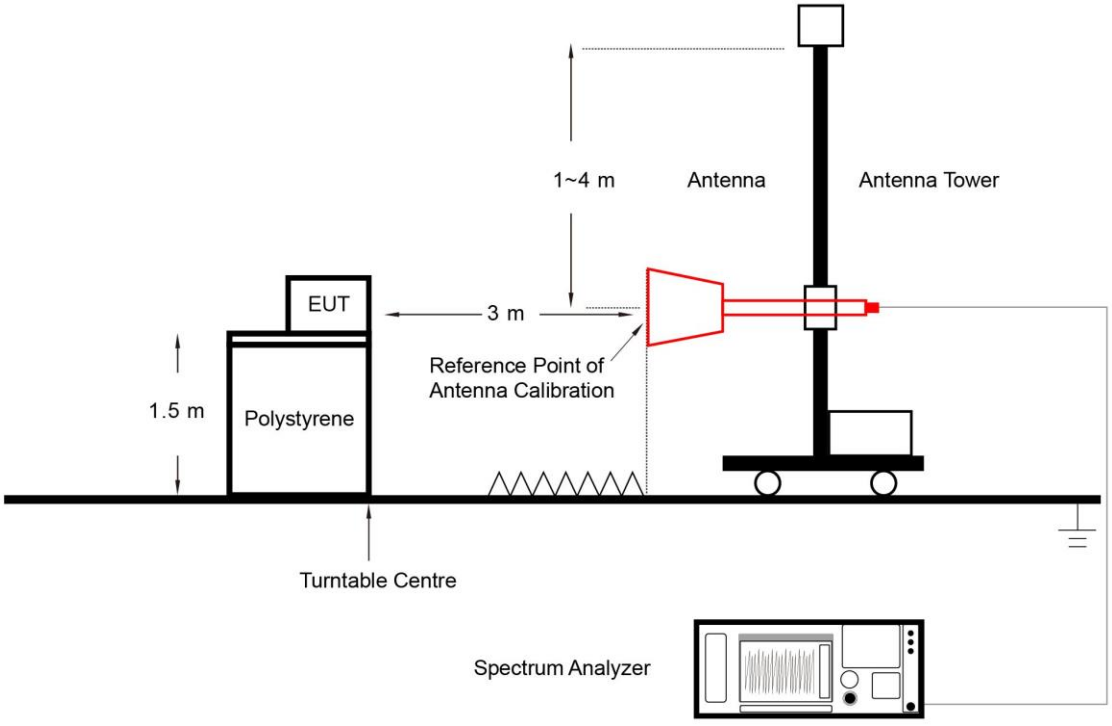
1. RBW = 1MHz
2. VBW ≥ 3*RBW
3. Sweep time ≥ 10 × (number of points in sweep) × (transmission symbol period)
4. Detector = Peak
5. Trace mode = max hold
6. The trace was allowed to stabilize

5.8.4.Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



5.8.5.Test Result

Refer to Appendix A.7.

Appendix A - Test Result

A.1 Occupied Bandwidth Test Result

Test Site	WZ-SR6	Test Engineer	Cloud Guo
Test Date	2023/04/21	Test Band	GPRS 850

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	824.2	0.251
Middle	836.4	0.243
High	848.8	0.243

99% Bandwidth

Low Channel

Middle Channel

High Channel

Test Site	WZ-SR6	Test Engineer	Cloud Guo
Test Date	2023/04/21	Test Band	GPRS 1900

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	1850.2	0.244
Middle	1880.0	0.246
High	1909.8	0.244

99% Bandwidth

Low Channel

Middle Channel

High Channel

Test Site	WZ-SR6	Test Engineer	Cloud Guo
Test Date	2023/04/21	Test Band	EGPRS 850

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	824.2	0.243
Middle	836.4	0.249
High	848.8	0.244

99% Bandwidth

Low Channel

Middle Channel

High Channel

Test Site	WZ-SR6	Test Engineer	Cloud Guo
Test Date	2023/04/21	Test Band	EGPRS 1900

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	1850.2	0.240
Middle	1880.0	0.242
High	1909.8	0.245

99% Bandwidth	
Low Channel	Middle Channel
	
High Channel	
	

A.2 Frequency Stability Test Result

Test Site	WZ-TR3	Test Engineer	Cloud Guo
Test Date	2022/07/28	Test Band	GPRS 850

Power (Vdc)	Temp. (°C)	Frequency Tolerance (ppm)
3.80	- 30	0.0034
	- 20	0.0044
	- 10	0.0029
	0	0.0023
	+ 10	0.0030
	+ 20	0.0047
	+ 30	0.0036
	+ 40	0.0027
	+ 50	0.0033
4.2	+ 20	0.0051
3.3	+ 20	0.0038

Test Site	WZ-TR3	Test Engineer	Cloud Guo
Test Date	2022/07/28	Test Band	GPRS 1900

Power (Vdc)	Temp. (°C)	Frequency Tolerance (ppm)
3.80	- 30	0.0007
	- 20	0.0020
	- 10	0.0025
	0	0.0018
	+ 10	0.0010
	+ 20	0.0031
	+ 30	0.0020
	+ 40	0.0019
	+ 50	0.0027
4.2	+ 20	0.0041
3.3	+ 20	0.0010

Test Site	WZ-TR3	Test Engineer	Cloud Guo
Test Date	2022/07/28	Test Band	EGPRS 850

Power (Vdc)	Temp. (°C)	Frequency Tolerance (ppm)
3.80	- 30	-0.0025
	- 20	-0.0007
	- 10	-0.0015
	0	-0.0008
	+ 10	0.0007
	+ 20	0.0012
	+ 30	0.0020
	+ 40	0.0026
	+ 50	0.0026
4.2	+ 20	-0.0014
3.3	+ 20	0.0019

Test Site	WZ-TR3	Test Engineer	Cloud Guo
Test Date	2022/07/28	Test Band	EGPRS 1900

Power (Vdc)	Temp. (°C)	Frequency Tolerance (ppm)
3.80	- 30	-0.0015
	- 20	-0.0024
	- 10	0.0013
	0	0.0023
	+ 10	0.0020
	+ 20	-0.0013
	+ 30	0.0026
	+ 40	0.0005
	+ 50	0.0004
4.2	+ 20	-0.0002
3.3	+ 20	0.0023

A.3 Equivalent Isotropically Radited Power Test Result

Test Site	WZ-SR3	Test Engineer	Cloud Guo
Test Date	2022/07/28	Test Band	GSM 850

Mode	Slot	Conducted Power (dBm)			Antenna Gain (dBi)	ERP (dBm)		
		GSM 850 Channel				GSM 850 Channel		
		128	189	251		128	189	251
GSM	-	30.81	30.73	31.07	0.44	29.10	29.02	29.36
GPRS	1	30.79	30.72	31.08	0.44	29.08	29.01	29.37
	2	28.52	28.52	28.66	0.44	26.81	26.81	26.95
	3	27.30	27.45	27.69	0.44	25.59	25.74	25.98
	4	25.08	25.25	25.48	0.44	23.37	23.54	23.77
EGPRS (GMSK)	1	30.86	30.84	31.10	0.44	29.15	29.13	29.39
	2	28.50	28.58	28.81	0.44	26.79	26.87	27.10
	3	26.47	26.55	26.74	0.44	24.76	24.84	25.03
	4	25.13	25.36	25.66	0.44	23.42	23.65	23.95
EGPRS (8PSK)	1	25.03	25.02	25.03	0.44	23.32	23.31	23.32
	2	22.96	23.08	23.11	0.44	21.25	21.37	21.40
	3	21.19	21.09	21.23	0.44	19.48	19.38	19.52
	4	19.73	19.89	19.58	0.44	18.02	18.18	17.87
Limit	38.45dBm							

Note: The ERP (dBm) = Output Power (dBm) + Antenna Gain (dBi) – 2.15

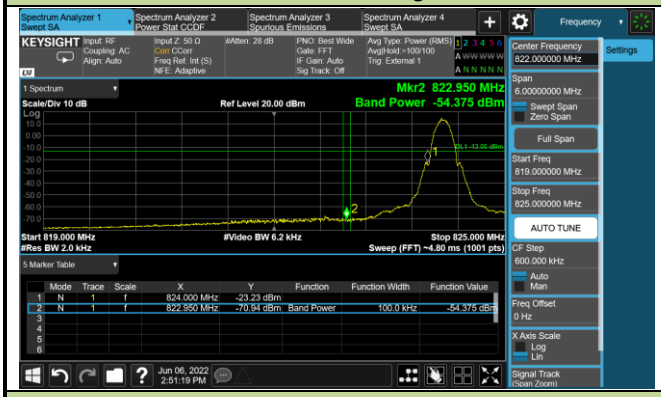
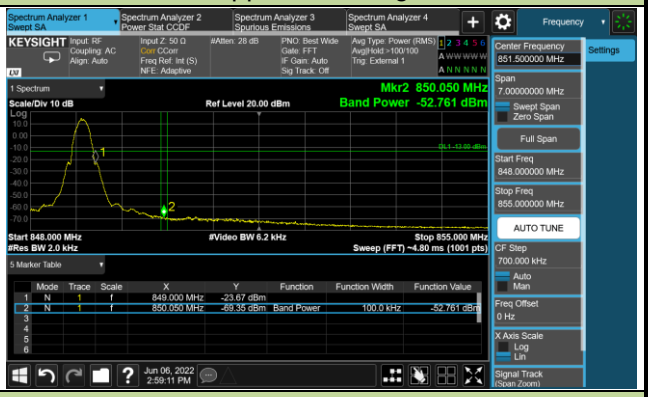
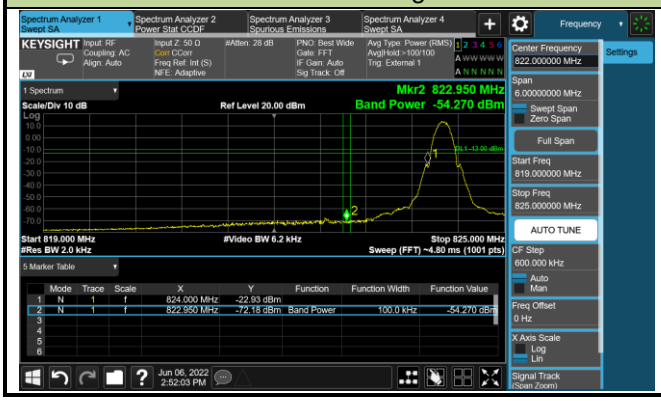
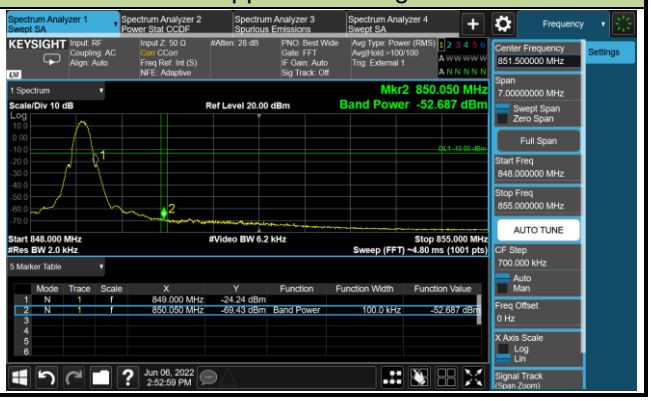
Test Site	WZ-SR6	Test Engineer	Cloud Guo
Test Date	2022/07/28	Test Band	PCS 1900

Mode	Slot	Conducted Power (dBm)			Antenna Gain (dBi)	EIRP (dBm)		
		DCS 1900 Channel				DCS 1900 Channel		
		512	661	810		512	661	810
GSM	-	28.82	28.78	29.43	0.78	29.60	29.56	30.21
GPRS	1	28.82	29.39	29.43	0.78	29.60	30.17	30.21
	2	27.60	27.50	27.43	0.78	28.38	28.28	28.21
	3	26.01	25.90	25.79	0.78	26.79	26.68	26.57
	4	23.59	23.46	23.30	0.78	24.37	24.24	24.08
EGPRS (GMSK)	1	29.40	29.36	29.38	0.78	30.18	30.14	30.16
	2	27.54	27.50	27.39	0.78	28.32	28.28	28.17
	3	25.91	25.80	25.74	0.78	26.69	26.58	26.52
	4	23.54	23.42	23.27	0.78	24.32	24.20	24.05
EGPRS (8PSK)	1	24.80	24.56	24.34	0.78	25.58	25.34	25.12
	2	23.04	22.90	22.79	0.78	23.82	23.68	23.57
	3	20.80	20.52	20.42	0.78	21.58	21.30	21.20
	4	18.71	18.41	18.33	0.78	19.49	19.19	19.11
Limit	33.01dBm							

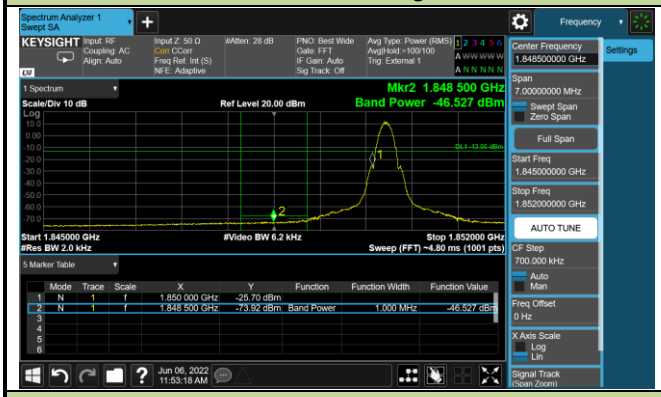
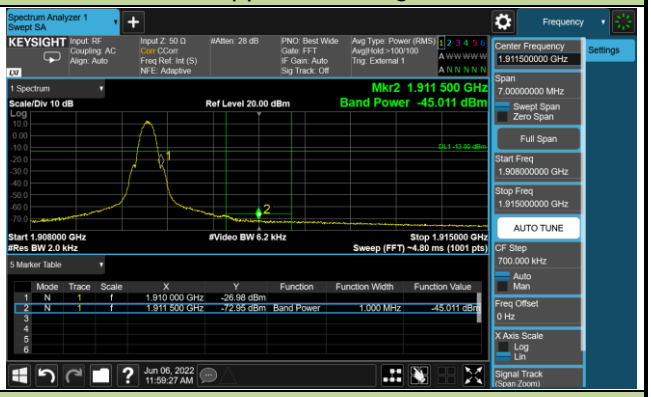
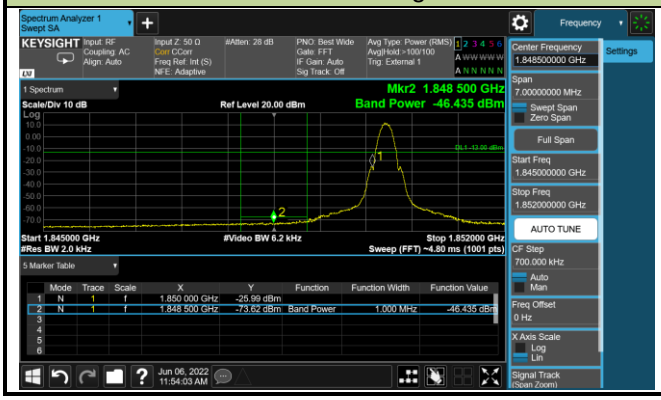
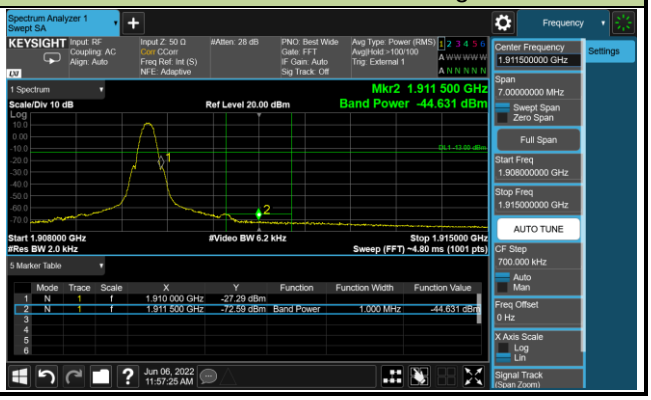
Note: The EIRP (dBm) = Output Power (dBm) + Antenna Gain (dBi)

A.4 Band Edge Test Result

Test Site	WZ-SR6	Test Engineer	Cloud Guo
Test Date	2022/06/06	Test Band	GSM 850

GSM 850	
Lower Band Edge	Upper Band Edge
	
GSM 850_EGPRS	
Lower Band Edge	Upper Band Edge
	

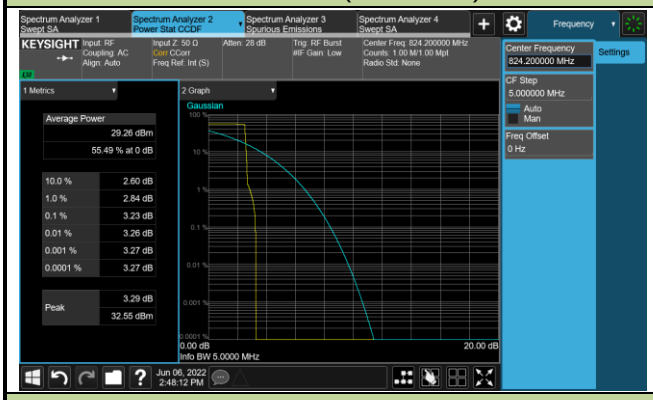
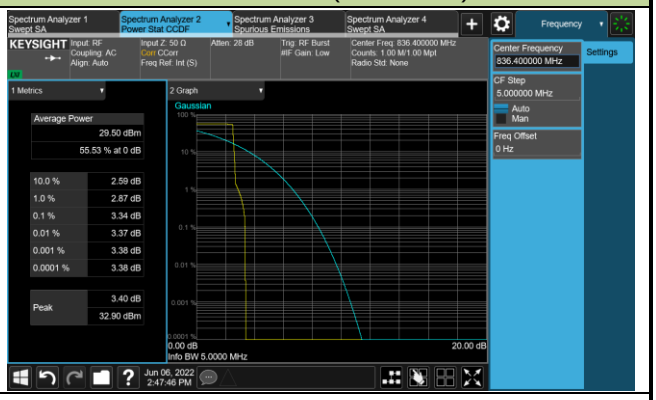
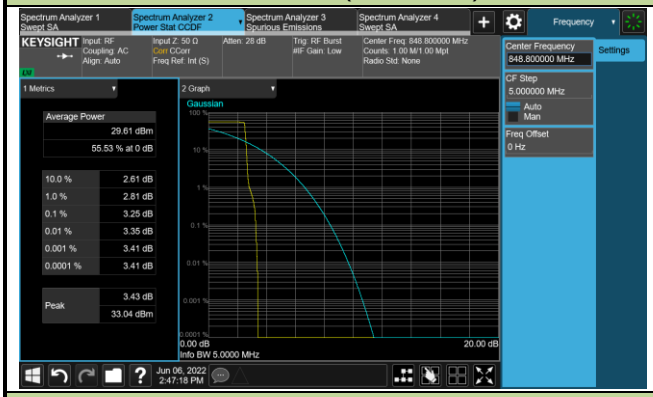
Test Site	WZ-SR6	Test Engineer	Cloud Guo
Test Date	2022/06/06	Test Band	GPRS 1900

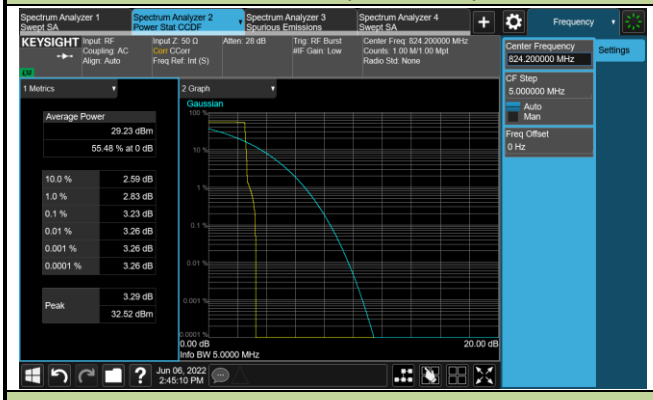
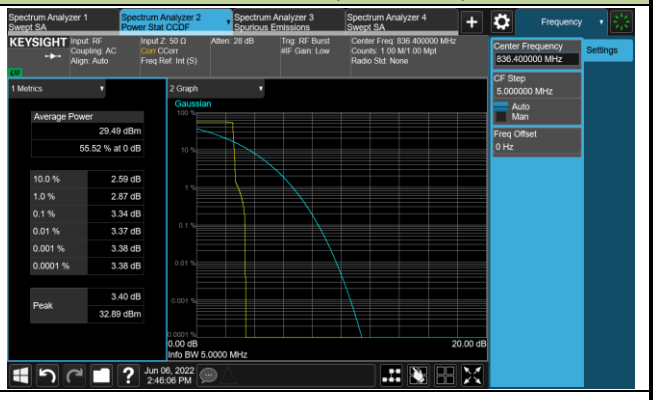
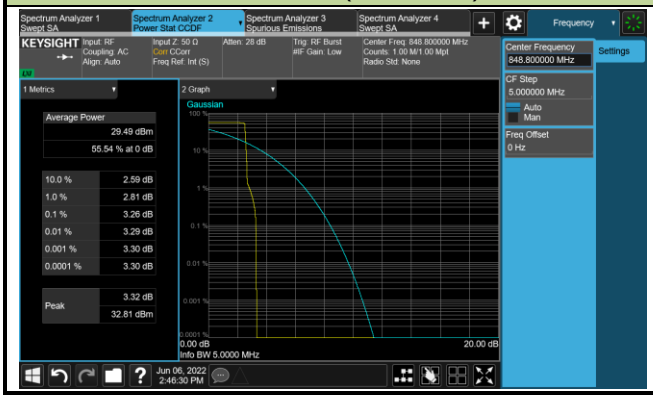
PCS 1900	
Lower Band Edge	Upper Band Edge
	
PCS 1900_EGPRS	
Lower Band Edge	Lower Extended Band Edge
	

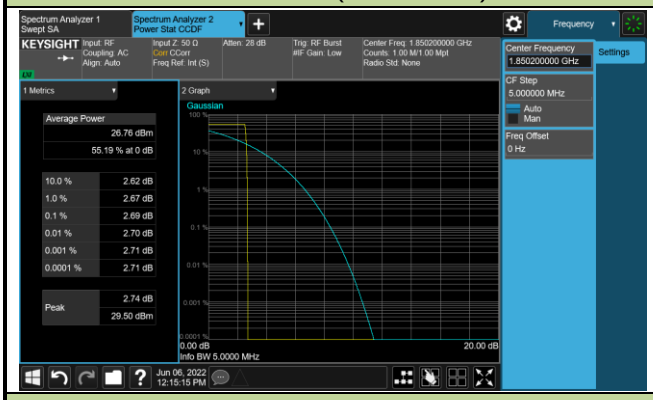
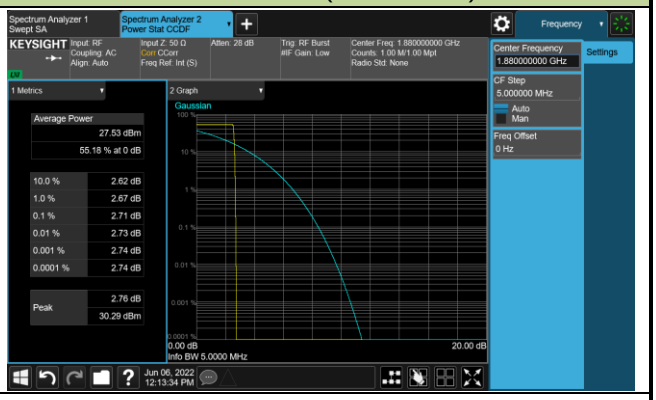
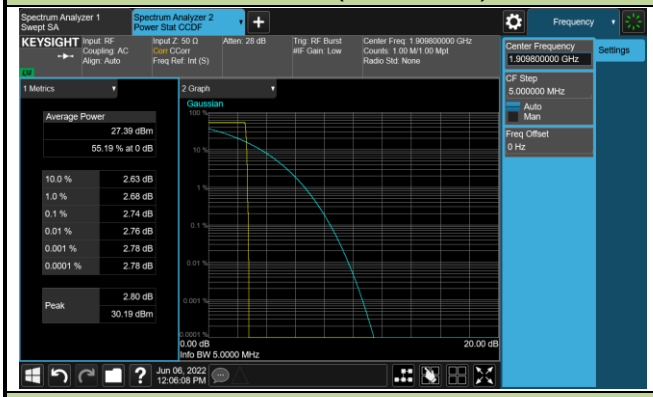
A.5 Peak to Average Radio Test Result

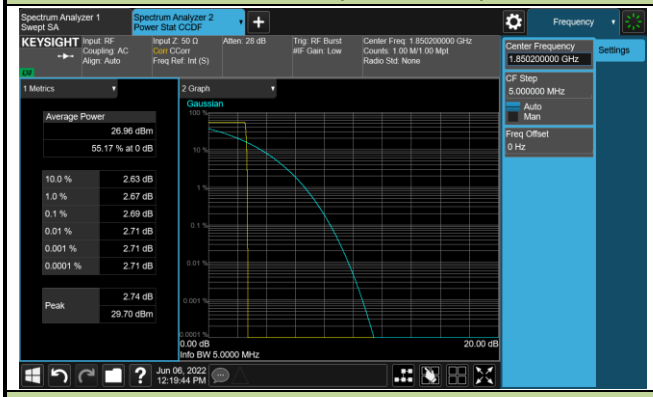
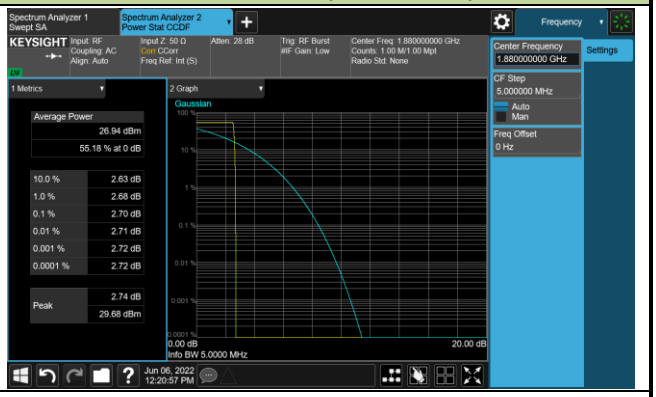
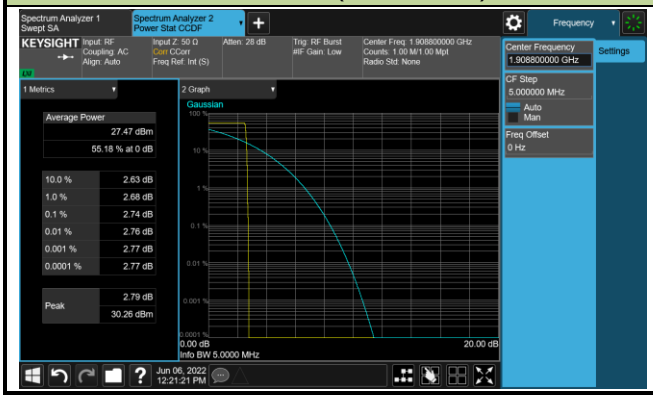
Test Site	WZ-SR6	Test Engineer	Cloud Guo
Test Date	2022/06/06	Test Band	GSM 850, PCS 1900

Channel No.	Frequency (MHz)	Channel Bandwidth (kHz)	Peak to Average Ratio (dB)	Limit (dB)	Result
GPRS 850					
128	824.2	200	3.23	≤ 13.00	Pass
189	836.4	200	3.34	≤ 13.00	Pass
251	848.8	200	3.25	≤ 13.00	Pass
EGPRS 850					
128	824.2	200	3.23	≤ 13.00	Pass
189	836.4	200	3.34	≤ 13.00	Pass
251	848.8	200	3.26	≤ 13.00	Pass
GPRS 1900					
512	1850.2	200	2.69	≤ 13.00	Pass
661	1880.0	200	2.71	≤ 13.00	Pass
810	1909.8	200	2.74	≤ 13.00	Pass
EGPRS 1900					
512	1850.2	200	2.69	≤ 13.00	Pass
661	1880.0	200	2.70	≤ 13.00	Pass
810	1909.8	200	2.74	≤ 13.00	Pass

GSM 850	
Channel 128 (824.2MHz)	Channel 189 (836.4MHz)
	
Channel 254 (848.8MHz)	
	

EGPRS 850	
Channel 128 (824.2MHz)	Channel 189 (836.4MHz)
	
Channel 254 (848.8MHz)	
	

PCS 1900	
Channel 512 (1850.2MHz)	Channel 661 (1880.0MHz)
	
Channel 810 (1909.8MHz)	
	

EGPRS 1900	
Channel 512 (1850.2MHz)	Channel 661 (1880.0MHz)
	
Channel 810 (1909.8MHz)	
	

A.6 Conducted Spurious Emissions Test Result

Test Site	WZ-SR6	Test Engineer	Cloud Guo
Test Date	2022/06/06	Test Band	GSM 850, PCS 1900

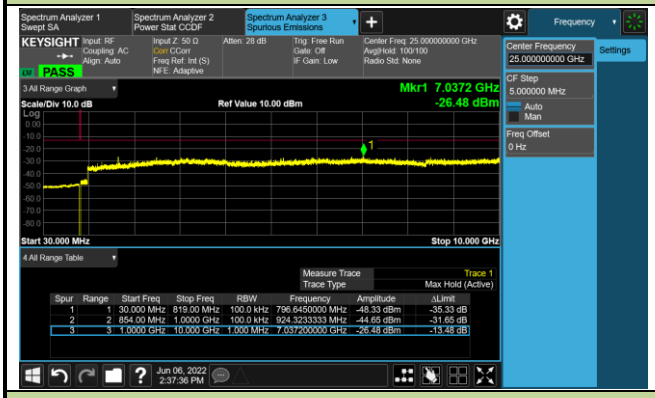
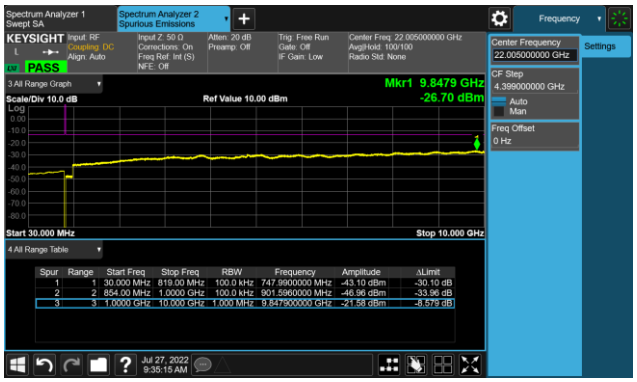
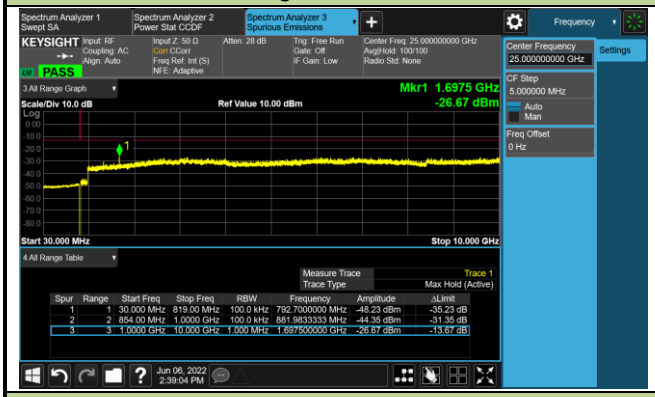
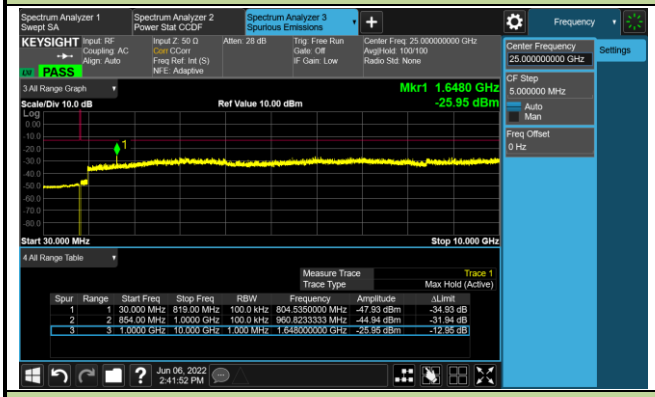
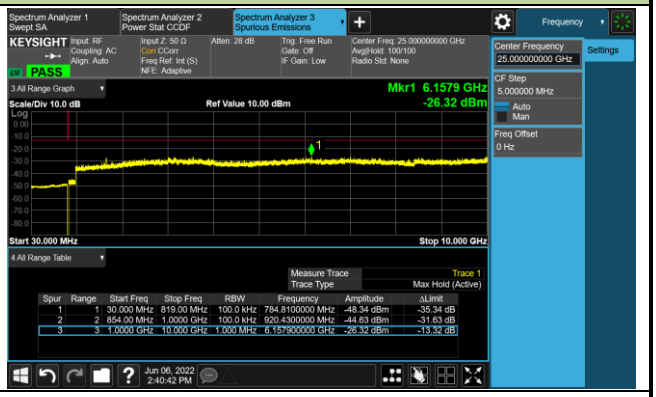
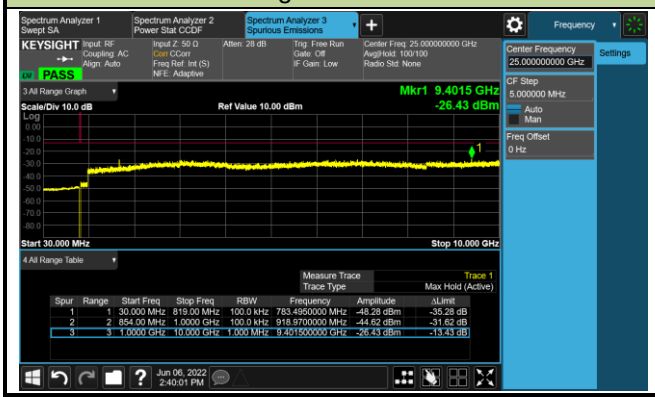
Mode	Frequency (MHz)	Frequency Range (MHz)	Max Spurious Emissions (dBm)	Limit (dBm)	Result
GSM 850	824.2	30 ~ 10000	-26.48	≤ -13.00	Pass
	836.4	30 ~ 10000	-26.70	≤ -13.00	Pass
	848.8	30 ~ 10000	-26.67	≤ -13.00	Pass
PCS 1900	1850.2	30 ~ 20000	-19.40	≤ -13.00	Pass
	1880.0	30 ~ 20000	-20.47	≤ -13.00	Pass
	1909.8	30 ~ 20000	-20.50	≤ -13.00	Pass

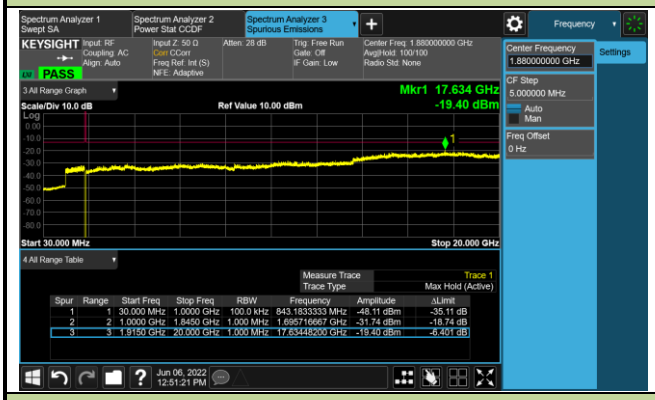
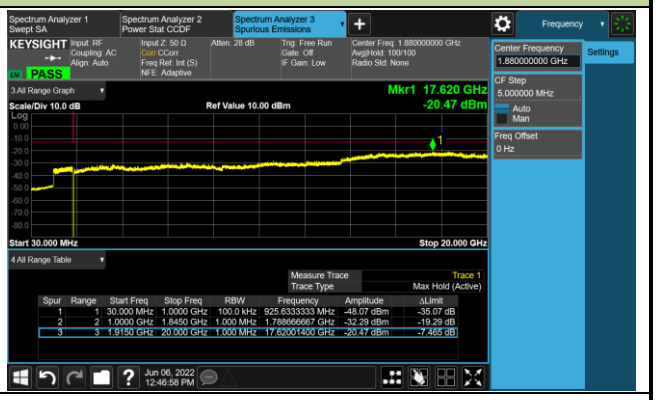
Note: Spurious emissions within 9kHz – 30MHz were found more than 20dB below limit line.

Test Site	WZ-SR6	Test Engineer	Cloud Guo
Test Date	2022/06/06	Test Band	GSM 850, PCS 1900(EDGE)

Mode	Frequency (MHz)	Frequency Range (MHz)	Max Spurious Emissions (dBm)	Limit (dBm)	Result
EDGE 850	824.2	30 ~ 10000	-25.95	≤ -13.00	Pass
	836.4	30 ~ 10000	-26.32	≤ -13.00	Pass
	848.8	30 ~ 10000	-26.43	≤ -13.00	Pass
EDGE 1900	1850.2	30 ~ 20000	-20.50	≤ -13.00	Pass
	1880.0	30 ~ 20000	-20.52	≤ -13.00	Pass
	1909.8	30 ~ 20000	-19.73	≤ -13.00	Pass

Note: Spurious emissions within 9kHz – 30MHz were found more than 20dB below limit line.

GSM 850	
Low Channel	Middle Channel
	
High Channel	
	
EDGE 850	
Low Channel	Middle Channel
	
High Channel	
	

PCS 1900	
Low Channel	Middle Channel
	
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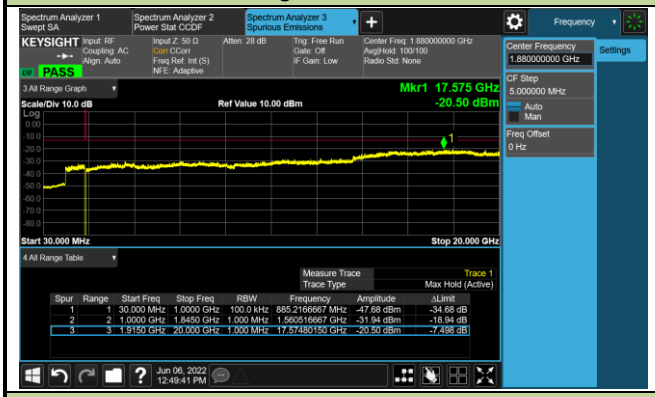
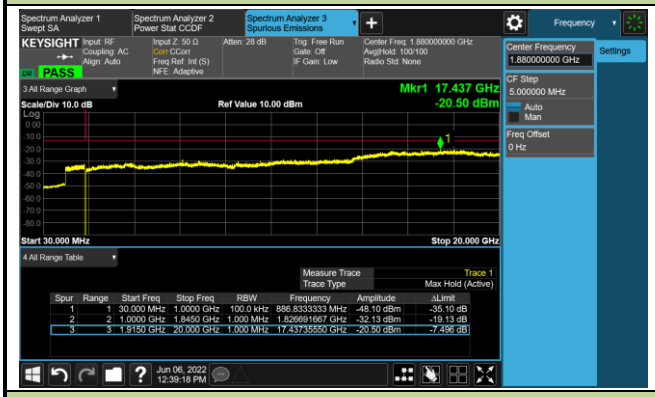
	

EDGE 1900	
Low Channel	Middle Channel
	
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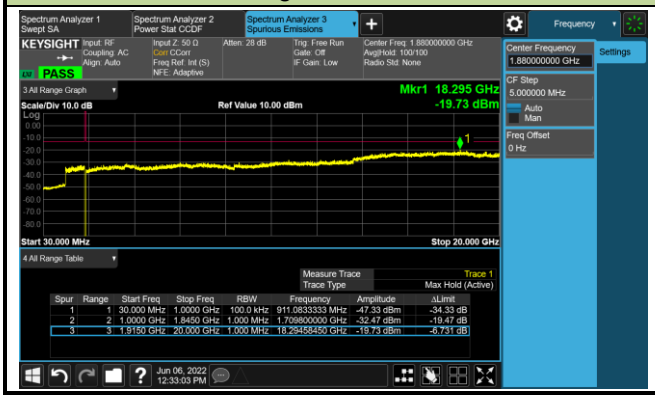	

A.7 Radiated Spurious Emissions Test Result

Test Site	WZ-AC2	Test Engineer	Bob Zhang
Test Date	2022/06/12~2022/07/28	Test Band	GSM850

Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level(dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
Low Channel							
669.2	22.7	28.0	50.7	82.3	-31.6	Peak	Horizontal
893.8	24.3	31.1	55.4	82.3	-26.9	Peak	Horizontal
620.2	22.8	27.3	50.1	82.3	-32.2	Peak	Vertical
966.1	24.0	31.4	55.4	82.3	-26.9	Peak	Vertical
1646.0	79.2	-5.9	73.3	82.3	-9.0	Peak	Horizontal
2470.5	65.9	-3.0	62.9	82.3	-19.4	Peak	Horizontal
1646.0	71.3	-5.9	65.4	82.3	-16.9	Peak	Vertical
2470.5	54.2	-3.0	51.2	82.3	-31.1	Peak	Vertical
Middle Channel							
586.8	22.5	27.2	49.7	82.3	-32.6	Peak	Horizontal
997.1	23.1	32.0	55.1	82.3	-27.2	Peak	Horizontal
797.3	24.1	29.7	53.8	82.3	-28.5	Peak	Vertical
905.9	25.1	31.2	56.3	82.3	-26.0	Peak	Vertical
1671.5	79.4	-5.9	73.5	82.3	-8.8	Peak	Horizontal
2513.0	65.2	-2.9	62.3	82.3	-20.0	Peak	Horizontal
1671.5	68.0	-5.9	62.1	82.3	-20.2	Peak	Vertical
2513.0	54.5	-2.9	51.6	82.3	-30.7	Peak	Vertical
High Channel							
658.6	22.7	27.7	50.4	82.3	-31.9	Peak	Horizontal
889.9	24.5	31.1	55.6	82.3	-26.7	Peak	Horizontal
758.0	23.0	29.5	52.5	82.3	-29.8	Peak	Vertical
983.0	23.6	31.8	55.4	82.3	-26.9	Peak	Vertical
1697.0	76.6	-5.9	70.7	82.3	-11.6	Peak	Horizontal
2547.0	65.3	-3.1	62.2	82.3	-20.1	Peak	Horizontal
1697.0	65.7	-5.9	59.8	82.3	-22.5	Peak	Vertical
2547.0	54.0	-3.1	50.9	82.3	-31.4	Peak	Vertical
Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB).							

Test Site	WZ-AC2	Test Engineer	Bob Zhang
Test Date	2022/06/12~2022/07/28	Test Band	PCS1900

Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level(dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
Low Channel							
41.2	7.4	19.8	27.2	82.3	-55.1	Peak	Horizontal
898.6	4.3	31.2	35.5	82.3	-46.8	Peak	Horizontal
41.2	26.4	19.8	46.2	82.3	-36.1	Peak	Vertical
874.9	3.8	31.1	34.9	82.3	-47.4	Peak	Vertical
3703.0	43.1	-0.5	42.6	82.3	-39.7	Peak	Horizontal
5547.5	40.0	4.2	44.2	82.3	-38.1	Peak	Horizontal
3703.0	52.0	-0.5	51.5	82.3	-30.8	Peak	Vertical
5547.5	42.8	4.2	47.0	82.3	-35.3	Peak	Vertical
Middle Channel							
40.7	7.5	19.6	27.1	82.3	-55.2	Peak	Horizontal
916.1	3.9	31.4	35.3	82.3	-47.0	Peak	Horizontal
41.2	25.7	19.8	45.5	82.3	-36.8	Peak	Vertical
871.0	4.1	31.1	35.2	82.3	-47.1	Peak	Vertical
3762.5	42.4	-0.4	42.0	82.3	-40.3	Peak	Horizontal
14251.5	34.2	19.9	54.1	82.3	-28.2	Peak	Horizontal
3762.5	51.7	-0.4	51.3	82.3	-31.0	Peak	Vertical
5641.0	44.8	4.7	49.5	82.3	-32.8	Peak	Vertical
High Channel							
40.7	7.1	19.6	26.7	82.3	-55.6	Peak	Horizontal
961.7	4.2	31.4	35.6	82.3	-46.7	Peak	Horizontal
41.2	24.5	19.8	44.3	82.3	-38.0	Peak	Vertical
900.6	4.6	31.2	35.8	82.3	-46.5	Peak	Vertical
3822.0	43.5	-0.1	43.4	82.3	-38.9	Peak	Horizontal
11378.5	34.6	17.4	52.0	82.3	-30.3	Peak	Horizontal
3822.0	50.2	-0.1	50.1	82.3	-32.2	Peak	Vertical
5726.0	47.7	5.4	53.1	82.3	-29.2	Peak	Vertical
Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB).							

Appendix B - Test Setup Photograph

Refer to “2205RSU044-UT” file.

Appendix C - EUT Photograph

Refer to “2205RSU044-UE” file.

The End